

ABSTRACT OF THE DISCLOSURE

Fe-Ni-Co alloy whose chemical composition contains, by weight:  $32\% \leq \text{Ni} \leq 34\%$ ,  $3.5\% \leq \text{Co} \leq 6.5\%$ ,  $0\% \leq \text{Mn} \leq 0.1\%$ ,  $0\% \leq \text{Si} \leq 0.1\%$ ,  $0\% \leq \text{Cr} \leq 0.1\%$ ,  $0.005\% \leq \text{C} \leq 0.02\%$ ,  $\text{S} \leq 0.001\%$ ,  $0.0001\% \leq \text{Ca} \leq 0.002\%$ ,  $0.0001\% \leq \text{Mg} \leq 0.002\%$ , the substantial remainder preferably being iron and impurities resulting from smelting; the chemical composition of the alloy furthermore satisfying the relationships:  
 $\text{Co} + \text{Ni} \leq 38.5\%$ ,  $\text{Co} + 0.5 \times \text{Ni} \geq 20\%$ ,  $\text{Co} + 5 \times \text{Ni} \geq 165.5\%$  and  $\text{S} \leq 0.02 \times \text{Mn} + 0.8 \times \text{Ca} + 0.6 \times \text{Mg}$ . Use of the alloy for the manufacture of a shadow mask for a display cathode ray tube.

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